

# WEST Search History

DATE: Monday, July 21, 2003

## Set Name Query

side by side

## Hit Count Set Name

result set

*DB=USPT,PGPB,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=ADJ*

L23	L20 same \$4acrylate	4	L23
L22	L20 same \$4acrylic acid	0	L22
L21	L20 with \$4acrylic acid	0	L21
L20	L19 or l18	49	L20
L19	graded copolymer	21	L19
L18	graded block copolymer	29	L18
L17	L10 same (\$4acrylate or \$4acrylic acid)	28	L17
L16	L10 with \$4acrylate	8	L16
L15	L10 adj4 \$4acrylate	0	L15
L14	L10 adj2 \$4acrylate	0	L14
L13	L10 with \$4acrylic acid	2	L13
L12	L10 adj2 \$4acrylic acid	0	L12
L11	L10 acrylic acid	0	L11
L10	tapered block copolymer	340	L10

*DB=USPT; PLUR=YES; OP=ADJ*

L9	L8 and polydispersity	0	L9
L8	5681877.pn.	1	L8

*DB=USPT,JPAB,EPAB,DWPI; PLUR=YES; OP=ADJ*

L7	L6 with (vinyl monomer or unsaturated monomer or \$4acrylate)	18	L7
L6	\$4acrylic acid block copolymer\$7	58	L6
L5	block copolymer \$4acrylic acid with (vinyl or unsaturated)	8	L5
L4	block copolymer \$4acrylic acid with ((vinyl or unsaturated)(monomer))	0	L4
L3	block copolymer \$4acrylic acid adj2 ((vinyl or unsaturated)(monomer))	0	L3
L2	block copolymer \$4acrylic acid with \$4acrylate	8	L2
L1	block copolymer \$4acrylic acid adj2 \$4acrylate	2	L1

END OF SEARCH HISTORY

**WEST****End of Result Set**☐ **Generate Collection** **Print**

L1: Entry 2 of 2

File: DWPI

Jul 7, 1989

DERWENT-ACC-NO: 1989-237760

DERWENT-WEEK: 199648

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TITLE: Radiation-curable resin compsn. - comprising e.g. oligoester acrylate, ethyl:hexyl acrylate, N-butyl acrylate, styrene and block copolymer of acrylic acid and methyl acrylate

PATENT-ASSIGNEE: NISSHIN STEEL CO LTD (NISI)

PRIORITY-DATA: 1987JP-0332630 (December 28, 1987)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 01172414 A	July 7, 1989		004	
JP 2549353 B2	October 30, 1996		004	C08F290/06

## APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
JP 01172414A	December 28, 1987	1987JP-0332630	
JP 2549353B2	December 28, 1987	1987JP-0332630	
JP 2549353B2		JP 1172414	Previous Publ.

INT-CL (IPC): C08F 2/44; C08F 290/06; C08F 299/00; C09D 3/72; C09D 5/00

ABSTRACTED-PUB-NO: JP 01172414A

## BASIC-ABSTRACT:

A radiation-curable resin compsn. comprises adding 0.1-5 wt.% of a vinyl copolymer with a mol.wt. of above 5000 obtd. by copolymerisation of 25-85 mol% of a vinyl monomer having at least one of carboxyl, hydroxyl and sulphone gps. and 15-75 mol% of a vinyl monomer having no those functional groups to a radiation-curable resin prep. by mixing a (meth)acryl monomer with a polymerisable monomer having one or both of (meth)acryloyl and vinyl gps.

USE/ADVANTAGE - Compsns. are obtd. with good adhesion to metals without loss of water moisture and impact resistance and processability. To improve adhesion to metals, in the invention, a vinyl copolymer having at least one of carboxyl, hydroxyl and sulphone groups is used in a rather smaller amt. instead of conventional monomers with polar gps. such as (meth)acrylic acid, 2-hydroxyethyl acrylate and styrene sulphonic acid. The copolymer is incompatible with resin oligomers and monomers, thus capable of reducing the amt. used., preventing loss of water moisture resistance of the resultant compsns..

ABSTRACTED-PUB-NO: JP 01172414A

## EQUIVALENT-ABSTRACTS:

CHOSEN-DRAWING: Dwg.0/3

DERWENT-CLASS: A14

CPI-CODES: A04-B09; A04-F01; A08-C07; A11-C02B; A12-B04; A12-B04D;

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L2: Entry 1 of 8

File: USPT

Dec 11, 2001

DOCUMENT-IDENTIFIER: US 6329480 B1

TITLE: Preparation process of acrylic acid ester polymer

Brief Summary Text (6):

(1) An acrylic acid ester homopolymer is available by the solution polymerization of an acrylic acid ester under low-temperature conditions of -78.degree. C. or so in a mixed solvent of toluene and tetrahydrofuran by using an organolithium compound as a polymerization initiator and lithium 2-(2-methoxyethoxy)ethoxide as an additive. A block copolymer having an acrylic acid ester polymer block and a methyl methacrylate polymer block is available by successively carrying out polymerization of an acrylic acid ester and polymerization of methyl methacrylate under the polymerization conditions similar to the above. (See Macromolecules, 27, 4890-4895(1994); Macromolecules, 27, 4908-4913(1994); Journal of Polymer Science: Part A: Polymer Chemistry, 35, 361-369(1997), et al.)

Detailed Description Text (50):

In the polymerization reaction according to the present invention, when the polymerization temperature is low, the resulting acrylic acid ester polymer tends to have improved stereoregularity so that even an acrylic acid ester polymer having crystallizability can be prepared. Since the acrylic acid ester polymer (particularly primary alkyl acrylate polymer) is generally a material excellent in flexibility, imparting the acrylic acid ester polymer with crystallizability makes it possible to provide a material having both excellent flexibility and excellent heat resistance or chemical resistance. In the case of block copolymerization, at a low polymerization temperature of the acrylic acid ester (a) upon formation of the polymer block (A), the resulting polymer block (A) tends to have improved stereoregularity, which makes it possible to prepare a block copolymer having the polymer block (A) with crystallizability, that is, a block copolymer with crystallizability. In the block copolymer having an acrylic acid ester polymer block, the acrylic acid ester polymer block contributes to the exhibition of flexibility (particularly, a primary alkyl acrylate polymer block makes a large contribution) so that it is possible to impart the block copolymer with excellent chemical resistance or high breaking strength by imparting the acrylic acid ester polymer block with crystallizability. The physical properties of the block copolymer with crystallizability differs largely with its melting point as a boundary and it is also possible to impart it with a desired thermal responsive function by making use of its crystallinity ratio, crystallization rate and crystallization temperature.

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L2: Entry 4 of 8

File: JPAB

Jul 26, 1994

DOCUMENT-IDENTIFIER: JP 06207076 A

TITLE: INORGANIC POWDER COMPOSITION CONTAINING POLYMERIC AUXILIARY AND ITS USE

Abstract Text (2):

CONSTITUTION: The inorg. powder compsn. is an inorg. powder blend comprising an inorg. powder, a dispersant and a binder. The dispersant and/or the binder to be used is a block copolymer of methacrylic acid units and alkyl methacrylate units in which the alkyl radical comprises 1-8 carbon atoms. The individual blocks of the alkyl methacrylate have a number average mol.wt. of at least 4,000 and the total block copolymer has a number average mol.wt. of up to 150,000.

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## **Collections**

### **Definition, Editing, Browsing**

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**Name:** Undefined**Contents:**

EP 601457A  
JP401172414A  
6329480  
5681877  
JP406207076A

**Comment:****Database:**

US Patents Full-Text Database  
US Patents Pre-Grant Publication Full-Text Database  
JPO Abstracts Database  
EPO Abstracts Database  
Derwent World Patents Index  
IBM Technical Disclosure Bulletins

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L7: Entry 8 of 18

File: USPT

Jan 13, 1998

DOCUMENT-IDENTIFIER: US 5708102 A

**\*\* See image for Certificate of Correction \*\***

TITLE: Living radical polymerization of vinyl monomers

Detailed Description Text (25):

Polymerization of methyl acrylate was carried out similarly to that in Example 5 except that 0.065 g (0.000077 mol) of (TMP)Co(II) complex was used. After 6 hours of polymerization at 60.degree. C. the polymer solution was cooled and the solvent and monomer were stripped out under vacuum. Commercial grade, inhibitor free acrylic acid, in the amount of 10 g (0.14 mol), and 25 ml benzene, both previously deoxygenated, were added to the polymer sample. Polymerization continued for an additional 6 hours at 60.degree. C. and then the unreacted monomer and the solvent were stripped out under vacuum. The product of the first polymerization step was poly(methyl acrylate) in 21% conversion with the following characteristics: M.sub.n 39,500, M.sub.w 46,700, M.sub.w /M.sub.n 1.19, Peak MW 44,900. The product of the second polymerization step was a poly(methyl acrylate)-poly(acrylic acid) block copolymer with the following characteristics: M.sub.n 54,500, M.sub.w 74,200, M.sub.w /M.sub.n 1.36, Peak MW 70,700.

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L7: Entry 16 of 18

File: USPT

May 24, 1994

DOCUMENT-IDENTIFIER: US 5314778 A

TITLE: Toner compositions containing complexed ionomeric materials

Brief Summary Text (9):

Madeline et al., U.S. Pat. No. 4,925,765 (issued May 15, 1990), discloses negatively chargeable toner containing block copolymers, which allegedly improves compatibility with the toner resin. Preferred are block copolymers of styrene, methyl methacrylate and butyl methacrylate as one block and salts or esters of methacrylic acid or acrylic acid as the other block in the copolymer.

**WEST****End of Result Set**

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L7: Entry 18 of 18

File: JPAB

Oct 2, 1991

DOCUMENT-IDENTIFIER: JP 03223377 A

TITLE: FUNCTIONAL GROUP-CONTAINING SUBSTRATE, PREPARATION OF THE SAME, AND MEDICAL MATERIAL AND EQUIPMENT USING THE SUBSTRATE

Abstract Text (2):

CONSTITUTION: A block copolymer having hydrophilic segments and hydrophobic segments [e.g. hydroxyethyl methacrylate-(methylemethacrylate/acrylic acid) block copolymer] and a polymer (e.g. polyethyleneimine) having a functional group (e.g. amino) to be introduced into a substrate (e.g. a porous PP film) are compounded. This compound is applied to the surface of the substrate, allowing the functional group to be present thereon.



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## End of Result Set

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L7: Entry 18 of 18

File: JPAB

Oct 2, 1991

PUB-NO: JP403223377A

DOCUMENT-IDENTIFIER: JP 03223377 A

TITLE: FUNCTIONAL GROUP-CONTAINING SUBSTRATE, PREPARATION OF THE SAME, AND MEDICAL MATERIAL AND EQUIPMENT USING THE SUBSTRATE

PUBN-DATE: October 2, 1991

## INVENTOR-INFORMATION:

NAME

COUNTRY

KITO, HITOSHI

YOKOYAMA, KENJI

HAGIWARA, KAZUHIKO

OSHIBE, YOSHIHIRO

OMURA, HIROSHI

## ASSIGNEE-INFORMATION:

NAME

COUNTRY

TERUMO CORP

NIPPON OIL &amp; FATS CO LTD

APPL-NO: JP02105265

APPL-DATE: April 23, 1990

INT-CL (IPC): C09D 153/00; A61L 33/00; C08L 53/00; C08L 79/02; C09D 179/02

## ABSTRACT:

PURPOSE: To obtain a functional group-containing substrate which is useful for preparing a medical material (e.g. an antithrombotic material obtained by the linkage of heparin and a functional group) by coating the surface of a substrate with a compound of a specific block copolymer and a polymer containing a functional group to be introduced, thereby allowing the functional group to be present on the substrate surface.

CONSTITUTION: A block copolymer having hydrophilic segments and hydrophobic segments [e.g. hydroxyethyl methacrylate-(methylmethacrylate/acrylic acid) block copolymer] and a polymer (e.g. polyethyleneimine) having a functional group (e.g. amino) to be introduced into a substrate (e.g. a porous PP film) are compounded. This compound is applied to the surface of the substrate, allowing the functional group to be present thereon.

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L10: Entry 4 of 340

File: PGPB

Jun 19, 2003

DOCUMENT-IDENTIFIER: US 20030114592 A1

TITLE: Processes for improving stability of living polymer chain ends

Summary of Invention Paragraph (101):

[0095] If a mixture of monomers is employed in the polymerization, the monomers can be added together to afford random or tapered block copolymers. The monomers can also be charged to the reactor sequentially to afford block copolymers.

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L13: Entry 1 of 2

File: PGPB

Sep 12, 2002

DOCUMENT-IDENTIFIER: US 20020128336 A1

TITLE: Foam including surface-modified nanoparticles

Summary of Invention Paragraph (68):

[0065] Examples of useful organic vehicles include natural and synthetic rubber resins including thermosettable rubbers as well as thermoplastic rubbers and elastomers including, e.g., nitrile rubbers (e.g., acrylonitrile-butadiene), polyisoprene rubber, polychloroprene rubber, polybutadiene rubber, butyl rubber, ethylene-propylene-diene monomer rubbers (EPDM), Santoprene.RTM. polypropylene-EPDM elastomers, ethylene-propylene rubber, styrene-butadiene copolymers, styrene-isoprene copolymers, styrene-butadiene-styrene b rubber, styrene-isoprene-styrene rubber, styrene-ethylene-butylene-styrene rubber, styrene-ethylene-propyl- ene-styrene rubber, polyisobutylene rubber, ethylene vinyl acetate rubbers, silicone rubbers including, e.g., polysiloxanes, methacrylate rubbers, polyacrylate rubbers including, e.g., copolymers of isooctyl acrylate and acrylic acid, polyesters, polyether esters, polyvinyl ethers, polyurethanes and blends and combinations thereof, including e.g., linear, radial, star and tapered block copolymers thereof.

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L16: Entry 4 of 8

File: USPT

Mar 6, 2001

DOCUMENT-IDENTIFIER: US 6197892 B1

TITLE: Functionalized polymers

Brief Summary Text (90):

The vinylaromatic polymers of component (c) may also be toughened by admixing small amounts, preferably from 2 to 20% by weight, based on the styrene polymer, of an acrylate rubber or of a polymer of a conjugated diene, such as butadiene or isoprene. The diene polymers may be partially or completely hydrogenated. The rubber and the diene polymer should have a glass transition temperature of less than 0.degree. C., measured according to K. H. Illers and H. Breuer, Kolloidzeitschrift 176 (1961), page 100. Conventional rubbers such as polybutadiene rubber, acrylate rubber, styrene/butadiene rubber, hydrogenated styrene/butadiene rubber, acrylonitrile/butadiene rubber, polyisoprene rubber, ionomers, styrene/butadiene block copolymers, including AB, ABA and ABAB tapered block copolymers, star block copolymers and the like, similar isoprene block copolymers and in particular (partially) hydrogenated block copolymers, as disclosed per se in EP-A-62 283, are suitable. Such synthetic rubbers are familiar to persons skilled in the art and are summarized, together with the unsuitable EPDM rubbers, in Ullmanns Enzyklopadie der technischen Chemie, 4th edition, Volume 13, pages 595 to 634, Verlag Chemie GmbH, 1977.

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L17: Entry 20 of 28

File: USPT

Mar 24, 1992

DOCUMENT-IDENTIFIER: US 5098959 A

TITLE: Block polymers of methacrylates

Brief Summary Text (23):

Additional copolymerizable monomers may be included in the polymerization process if desired in order to modify the resulting block copolymer properties. The copolymerizable monomers may be incorporated as separate blocks or added concurrently to the polymerization, resulting in the formation of tapered block copolymers. Suitable copolymerizable monomers include monovinylidene aromatic monomers such as styrene, c-methylstyrene, t-butyl styrene, etc.; acrylonitrile; N,N-dialkyl acrylamides; conjugated dienes; reactive coupling agents such as divinyl benzene, ethylene glycol dimethacrylate; etc. Certain of the foregoing monomers may be employed to modify specific polymer properties. For example, t-butyl styrene containing polymers possess enhanced solubility in aliphatic solvents such as hexane. However, because the basicity of the living anion is affected by the addition of methacrylate functionality, the above described additional copolymerizable monomers are generally incorporated into the polymer prior to polymerization of either the hydrolyzable methacrylate or the non-hydrolyzable methacrylate. In addition, it may be desirable to employ a protecting group such as 1,1-diphenylethylene in order to prevent reaction of such functionality with the carbonyl functionality of later added methacrylate monomers. For the foregoing reasons, preferred polymers according to the invention comprise only hydrolyzable methacrylate ester moieties or derivatives thereof and non-hydrolyzable methacrylate ester moieties.